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REMARKS

The Office Action dated February 18, 2004, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

By this Amendment, claims 47, 48 and 62-64 have been canceled, and claims 53-59 have been amended. No new matter has been added. Claim 52 was withdrawn pursuant to a Restriction Requirement dated December 12, 2003. Claims 2-8, 10-19, 21, 22, 24-27, 29, 31-40, 43, 44, and 52-61 are pending in this application and are submitted for consideration.

Applicants wish to thank the Examiner for indicating allowable subject matter in claims 4-6, 8, 12, 15, 19, 34, 40 and 44. These claims were not rewritten independent form as all of the presently pending claims recite allowable subject matter. Therefore, rewriting claims 4-6, 8, 12, 15, 19, 34, 40 and 44 into independent form is not necessary.

Claims 2, 3, 7, 10, 11, 14, 16, 18, 21, 22, 24-27, 29, 31, 32, 35-38, 43 and 53-61 were rejected under 35 U.S.C. § 102(e) as being anticipated by Higuchi et al. (U.S. Patent No. 6,167,037, "Higuchi"). Claims 2, 3 and 7 depend from claim **53**, claims 10, 11, 14, 16 and 18 depend from claim **54**, claims 21 and 22 depend from claim **55**, claims 24-27 depend from claim **56**, claim 29 depends from claim **57**, claims 31, 32 and 35-38 depend from claim **58**, and claim 43 depends from claim **60**. The Applicants respectfully submit that claims 2, 3, 7, 10, 11, 14, 16, 18, 21-22, 24-27, 31-32, 35-38, 43 and 53-61 recite subject matter that is neither disclosed nor suggested by Higuchi.

Claim 53 recites a cell search method comprising the steps of detecting correlation values between an input signal and a spreading code; comparing each of said detected correlation values with a threshold value; and detecting a correlation peak value in a predetermined unit of slots in accordance with a result of said comparison.

Claim 54 recites a communication synchronization apparatus including a detection device that detects correlation values between an input signal and a spreading code generated by the detection device, and detects a correlation peak value in a predetermined unit of slots to detect a synchronization point of said input signal. A comparison section is provided for comparing each of the detected correlation values with a predetermined threshold value.

Claim 55 recites a computer-readable storage medium for a communication synchronization apparatus including a detection device that detects correlation values between an input signal and a spreading code generated by the detection device, and detects a correlation peak value in a predetermined unit of slots to detect a synchronization point of said input signal, the medium stores a program for causing a computer to realize a comparison function of comparing each of the detected correlation values with a predetermined threshold value.

Claim 56 recites a cell search method comprising the steps of detecting correlation values between an input signal and a spreading code; comparing each of said detected correlation values with a threshold value; detecting a correlation peak value in a predetermined unit of slots in accordance with a result of said comparison; and ending the process when the number of paths at which an integrated correlation value has reached a reference set value, reaches a path count set value.

Claim 57 recites a cell search method comprising the steps of detecting correlation values between an input signal and a spreading code; comparing each of said detected correlation values with a threshold value; detecting a correlation peak value in a predetermined unit of slots in accordance with a result of said comparison; and providing a first mode in which the process is ended when the number of paths at which an integrated correlation value has reached a reference set value, reaches a path count set value, and a second mode in which the process is performed a predetermined number of times.

Claim 58 recites a communication synchronization apparatus including a detection device that detects each slot in a predetermined unit, a correlation value between an input signal and a spreading code generated by the detection device, the detection process for correlation value is performed over several slots, the correlation values obtained in the slots are integrated to detect a correlation peak value, and thereby a synchronization point of said input signal is detected. A comparison section is provided for comparing each of a calculated integrated correlation value with a reference set value; and selecting the value which exceeds said reference value to store in a memory.

Claim 59 recites a communication synchronization apparatus including a detection device that detects each slot in a predetermined unit, correlation values between an input signal and a spreading code generated by the detection device, the detection process for correlation value is performed over several slots, the correlation values obtained in the slots are integrated to detect a correlation peak value, and thereby a synchronization point of said input signal is detected. A comparison section is

provided for comparing each of the detected correlation value or each of a value output from a power conversion device for converting the correlation value into a power value, with a reference set value, and selecting the value which exceeds said reference value to store in a memory.

Claim 60 recites a communication synchronization apparatus including a detection device that detects each slot in a predetermined unit, a correlation value between an input signal and a spreading code generated by the detection process for correlation value is performed over several slots, the correlation values obtained in the slots are integrated to detect a correlation peak value, and thereby a synchronization point of said input signal is detected. A first mode is included in which integration is ended when the number of paths at which an integrated correlation value has reached a reference set value, reaches a path count set value, and a second mode in which integration is performed a predetermined number of times.

Claim 61 recites a computer-readable storage medium for a cell search operation comprising a detection device that detects each slot in a predetermined unit, a correlation value between an input signal and a spreading code generated by the detection device, the detection process for correlation value is performed over several slots, and the correlation values obtained in the slots are integrated to detect a correlation peak value, said medium storing a program for causing a computer to realize a function of ending integration when the number of paths at which an integrated correlation value has reached a reference set value, reaches a path count set value.

In making the claim rejections, the Office Action took the position that Higuchi discloses all of the elements of the claimed invention. However, it is respectfully

submitted that Higuchi fails to disclose or suggest the structure of the claimed invention, and therefore, fails to provide the advantages of the present invention. For example, the present invention is configured to detect a correlation value between an input signal and a spreading code, and detect a correlation peak value in a predetermined unit of slots by comparison between each of the detected correlation value and threshold value.

As a result of the claimed configuration, in the correlation values obtained in a slot, the correlation values exceeding the threshold value are registered in the memory, and the correlation values not exceeding the threshold value are neglected as noise data. The unnecessary correlation values at noise levels are not stored in the memory. For this reason, the number of correlation values actually stored in the memory can be decreased. Hence, the necessary storage capacity of the memory can be greatly decreased, and so the physical circuit area of the memory can be considerably reduced. Power consumption can also be reduced. Thereby, continuous stand-by time and continuous talk time can last longer, which is an essential feature for portable terminals.

Higuchi discloses, in Fig. 9, detecting correlation values by comparing an input signal with a spreading code (S2100), storing all of the detected correlation values in a memory (S2200), selecting the maximum correlation value (S2300), and comparing the maximum correlation value with a threshold value. Unless the maximum correlation value exceeds the threshold value, return to S2100 (S2400 in Fig. 9).

Independent Claims 53-55, 58 and 59

The Applicants submit that Higuchi fails to disclose or suggest the claimed features of the invention. Claims 53-55, 58 and 59 recite that only the detected

correlation value exceeding the threshold value is selectively stored in a memory. Specifically, claims 53 and 54 recite “detecting correlation values and selecting the correlation value which exceeds said threshold value and storing said selected correlation value in memory.” Claim 55 recites “a detection device that detects correlation values and a medium storing a program for causing a computer to realize a comparison function . . . of selecting the correlation value which exceeds said threshold value to store in a memory.” Claim 58 recites “a comparison section is provided for comparing each of a calculated integrated correlation value with a reference set value; and selecting the value which exceeds said reference value to store in a memory.” Claim 59 recites “a comparison section for comparing each of the detected correlation value or each of a value output from a power conversion device for converting the correlation value into a power value, with a reference set value, and selecting the value which exceeds said reference value to store in a memory.” That is, the detected correlation value not exceeding the threshold value is not stored in memory. Thereby, a memory can be advantageously more compact and power consumption can be reduced so that a portable terminal can also be compact. Thereby, a continuous stand-by time and a continuous talk time can last longer, which is essential for portable terminals.

In contrast, Higuchi discloses that all of the detected correlation values in Higuchi are stored in a memory. Accordingly, Higuchi fails to disclose or suggest each and every feature of the invention as recited in claims 53-55, 58 and 59.

Independent Claims 56, 57, 60 and 61

With respect to claims 56, 57, 60 and 61, the Applicants submit that Higuchi fails to disclose or suggest the claimed features of the invention. Claims 56, 57, 60 and 61 recite that the integration process is ended when the number of paths at which an integrated correlation value has reached a reference set value, reaches a path count set value. In a strong electrical field area such as a major city, there are many base stations (paths) to communicate with when a cell search is operating, because a cell area of one base station overlaps a cell area of another base station. That is, many paths where an integrated correlation value exceeds a reference set value by operating cell search occur. Under these circumstances, any path can be chosen for communication. Accordingly, it becomes inefficient to continue a cell search without stopping to find base stations (paths) which in turn results in extra power consumption. As recited in claims 56, 57, 60 and 61, the cell search stops to preserve the life of the battery, which enables a continuous stand-by time and a continuous talk time for the portable terminal. Higuchi, however, fails to disclose or suggest the function of ending integration when the number of paths at which an integrated correlation value has reached a reference set value, reaches a path count set value as recited in claims 56, 57, 60 and 61.

According to U.S. patent practice, a reference must teach every element of a claim in order to properly anticipate the claim under 35 U.S.C. §102. In addition, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628,631, 2 USPQ2d 1051, 1053 (Fed. Cir.

1987). "Every element of the claimed invention must be arranged as in the claim . . . the identical invention, specifically, [t]he identical invention must be shown in as complete detail as contained in the claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989) (emphasis added). The Applicants respectfully submit that Higuchi does not disclose or suggest selecting the correlation value which exceeds said threshold value and storing said selected correlation value in memory as arranged in claims 53-55 58 and 59, or the function of ending integration when the number of paths at which an integrated correlation value has reached a reference set value, reaches a path count set value as recited in claims 56, 57, 60, and 61. Accordingly, Higuchi does not anticipate claims 53-61, nor are claims 53-61, obvious in view of Higuchi.

As claims 2, 3 and 7 depend from claim 53, claims 10, 11, 14, 16 and 18 depend from claim 54, claims 21-22 depend from claim 55, claims 24-27 depend from claim 56, claim 29 depends from claim 57, claims 31-32 and 35-38 depend from claim 58, and claim 43 depends from claim 60, the Applicants respectfully submit that each of these claims incorporate the patentable aspects thereof, and are therefore allowable for at least the same reasons as discussed above.

Claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Wilson (U.S. Patent No. 3,680,055). Claim 17 depends from claim 54. As discussed above, Higuchi fails to disclose or suggest selecting the correlation value which exceeds said threshold value and storing said selected correlation value in memory. Wilson fails to cure the deficiency in Higuchi with respect to claim 54, and therefore the combination of Wilson and Higuchi fails to disclose or suggest the features of the invention as recited in claim 17.

Claims 13, 33, 39, 47 and 62-64 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Higuchi in view of Shibata et al. (U.S. Patent No. 6,115,725, "Shibata"). As noted above, claims 47 and 62-64 have been canceled. The Applicants respectfully submit that the combination of Higuchi and Shibata fails to disclose or suggest the features of the invention as recited in claims 13, 33, and 39.

Shibata fails to disclose or suggest only the detected correlation value exceeding the threshold value is selectively stored in a memory. As such, Shibata fails cure the deficiencies in Higuchi with respect to claims 54 and 58 from which claims 13, 33, and 39 depend.

Claim 13 depends from claim 54, and claims 33 and 39 depend from claim 58. As discussed above, Shibata fails to cure the deficiencies in Higuchi with respect to claims 54, and 58, and therefore, dependent claims 13, 33, and 39. Accordingly, Higuchi and Shibata, either singly or in combination fail to disclose or suggest the features of the invention as recited in claims 13, 33, and 39.

Claim 48 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Higuchi in view of Shibata, and further in view of Segars (U.S. Patent No. 6,405,321). As claim 48 has been canceled, the rejection is now rendered moot.

Under U.S. patent practice, the PTO has the burden under §103 to establish a *prima facie* case of obviousness. In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Both the case law of the Federal Circuit and the PTO itself have made clear that where a modification must be made to the prior art to reject or invalidate a claim under §103, there must be a showing of proper motivation to do so. The mere fact that a prior art reference could arguably be modified to meet the claim is insufficient to establish

obviousness. The PTO can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. Id. In order to establish obviousness, there must be a suggestion or motivation in the reference to do so. See also In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (prior art could not be turned upside down without motivation to do so); In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1998); In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999); In re Lee, 277 F.3d 1338 (Fed. Cir. 2002). The Office Action restates the advantages of the present invention to justify the combination of references. There is, however, nothing in the applied references to evidence the desirability of these advantages in the disclosed structure. As such, Higuchi, Wilson, Shibata and Segars, either singly or in combination fail to disclose or suggest the claimed features of the invention.

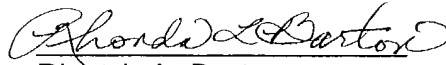
In view of the foregoing, reconsideration of the application, withdrawal of the outstanding rejections, allowance of claims 2-8, 10-19, 21, 22, 24-27, 29, 31-40, 43, 44, and 52-61 and the prompt issuance of a Notice of Allowability are respectfully requested.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper,

may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 108390-00002.**

Respectfully submitted,



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Enclosures: Petition for Extension of Time (3-months)

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